

2071.0 - Reflecting a Nation: Stories from the 2011 Census, 2012–2013

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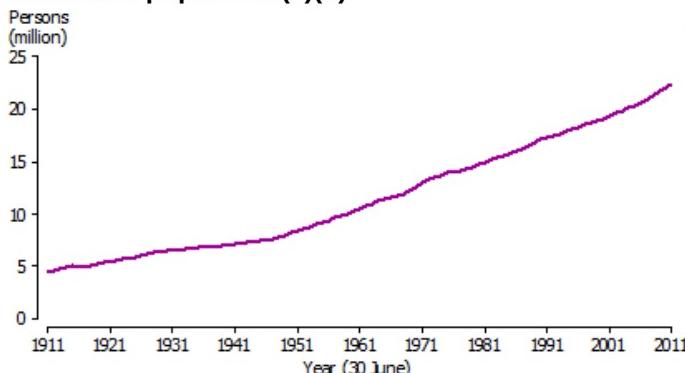


100 years of Australian Lives - Population

Reflecting a Nation: Stories from the 2011 Census

In conducting the 16th Census of Population and Housing on the 9th of August 2011 the Australian Bureau of Statistics celebrated 100 years of Commonwealth Government Censuses in Australia, with the first national Census conducted on the 2nd of April 1911. Through the information contributed by Australians over the past century, the Census has become a statistical record of the nation that charts the growth and development of Australia's population, society and economy. This invaluable statistical record enables direct insight into the nature of the growth and development that has occurred in Australia, as well as providing a window on the events that are associated with these changes. This article explores the size and structure of Australia's population over the past 100 years and describes how this population profile has been influenced by historical events, such as the World Wars, the Great Depression, the post war Baby and Immigration Booms, and contemporary social and economic changes.

Australia's population(a)(b)



Annual population growth(a)(b)



(a) Population estimates based on Census counts and other information, see the box at end for more information.

(b) Includes Other Territories from 1994.

Source(s): Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001) and Australian Demographic Statistics, December 2011 (cat. no. 3101.0).

POPULATION

The Census plays a fundamental role in enabling understanding of the basic nature of Australia's population. From the raw Census counts, the ABS produces official estimates of the population; the modern version of these estimates are referred to as the Estimated Resident Population (ERP). These official population estimates show that Australia's population was a little under 4.5 million people in 1911 and by 2011 there were 22.3 million people. By the end of this 100 year period there were five times as many Australians compared to the beginning. Of the Australian born residents that were alive in 1911 for the first Commonwealth Census a little over 1,900 were counted in the 2011 Census.

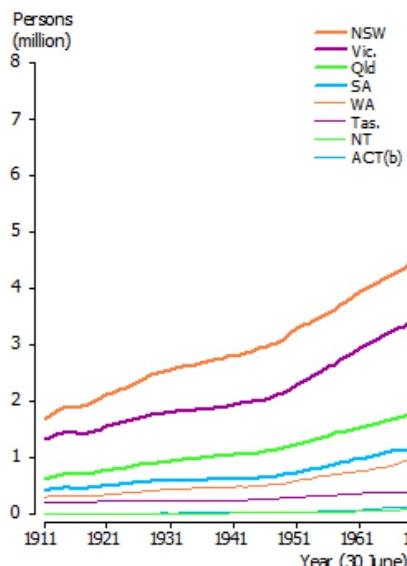
POPULATION DISTRIBUTION

The Commonwealth Censuses have also tracked the growth and development of the states and territories that make up the Commonwealth of Australia, as well as recording the distribution of the population between them. In the 100 years between 1911 and 2011, population growth for the two most populous states, New South Wales and Victoria, has largely tracked that of the national population. That said, the share of the national population that each of these two states has held has varied. Over the 100 year period both of these states have had an average population growth rate that was lower than the overall national average. This lower than average growth has resulted in both states having a smaller percentage share of the national population in 2011 than they did in 1911; the decline in population

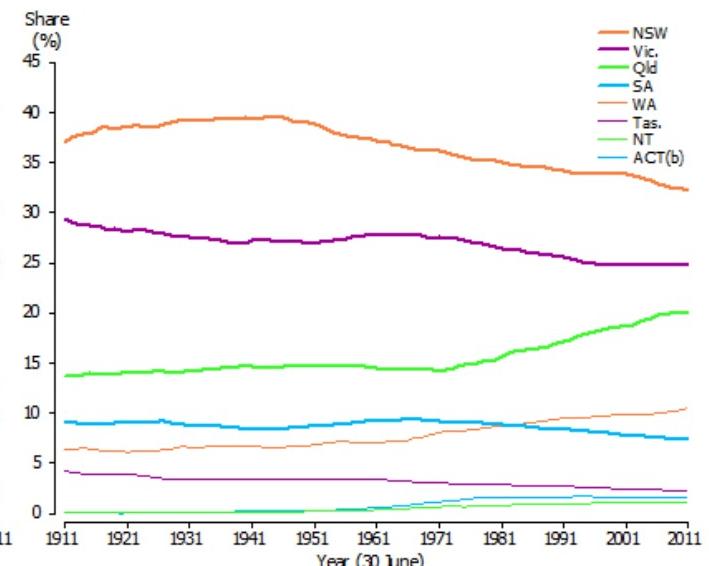
share was 4.7 percentage points for New South Wales and 4.6 for Victoria.

Between 2001 and 2011, New South Wales experienced consistent declines in its share of the national population; declining by 1.6 percentage points. This may be partly associated with infrastructure and capacity constraints in the Sydney region, where the currently available estimates show that Sydney's share of the national population declined by 1.0 percentage points between 2001 and 2010. ([Endnote 1](#))

State and territory population(a)



State and territory population share(a)



(a) Population estimates based on Census counts and other information, see the box at end for more information.

(b) Includes Jervis Bay Territory from 1915 to 1993.

Source(s): Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001) and Australian Demographic Statistics, December 2011 (cat. no. 3101.0).

Both Western Australia and Queensland had relatively consistent shares of the national population until the 1960s and 1970s, when substantial expansion of the economies in both states began to occur, supported at least in part by mining development. Since 1911, Queensland's share of the national population has grown by 6.3 percentage points, while the population share for Western Australia grew by 4.1 percentage points. As a result of the growth in Western Australia the state's population exceeded that of South Australia in 1982.

While migration following the Second World War benefitted all states and territories, the benefit was proportionately greater in South Australia, Victoria and Western Australia and these states increased their population shares. Between 1947 and 1965, South Australia increased its share of the national population by 0.9 of a percentage point. However, the general story for South Australia has been for it to lose population share to the rest of Australia and since 1911 its population share has declined by 1.8 percentage points. Consistently slower population growth for Tasmania has also resulted in this state losing population share over the period, declining by 1.9 percentage points.

Both the Australian Capital Territory and the Northern Territory have gained population share over this 100 year period, 1.6 and 1.0 percentage points respectively. Both of these territories started from very low bases both in terms of the number of people and the size of their economies.

POPULATION PROFILES

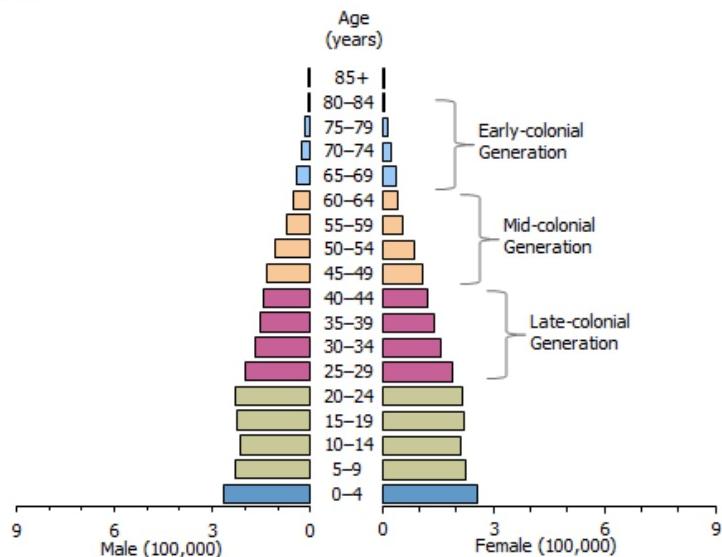
The population estimates are far richer than just providing counts of the population, they also provide a detailed age and sex profile that is critical to understanding the shape and character of the national population. The changing population profile of Australia can be seen in the population pyramids below, which display the age structure of both the males and females in the population. Imprinted into the population estimates and these age-sex profiles, that are based on Census results between 1911 and 2011, are many of the key events and developments in the history of the Commonwealth of Australia.

Defining the generations	Generations	Birth cohort
A number of generations have been used in this article to assist in tracking age groups in the population through time. In	Early-colonial Generation	1826–1846

the population pyramids (below) a separate colour is used to identify each generation. A number of factors have been taken into account in defining these generations, including: significant national or world events, birth rates of age cohort, and shared life experiences. Each generation covers a 20 year age group to allow more meaningful comparisons across generations using census data. For example, Generation X and Y, while separately identified by most social commentators, have many characteristics in common and have been combined to form a 20 year cohort. It should be noted that there is no wide-spread agreement about the names and definitions of these generations. Furthermore, the names adopted in this article have been used by other commentators to refer to slightly different groups.

Mid-colonial Generation	1846–1866
Late-colonial Generation	1866–1886
Hard Timers	1886–1906
Frugal Generation	1906–1926
Silent Generation	1926–1946
Baby Boomers	1946–1966
Generation X and Y	1966–1986
iGeneration	1986–2006

Population structure(a) - 1911



(a) Population estimates based on Census counts and other information, see the box at end for more information.
Source: Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001).

Pre-Federation Australia to the Great Depression

The Australian population counted in the first Commonwealth Census of 1911 was strongly influenced by the generations of settlers that had arrived in Australia over the preceding century. The oldest group in the population referred to in this article are called the Early-colonial generation (the 20 year age cohort shown in light blue on the population pyramid above). As young adults the Early-colonial generation would have seen or participated in the rapid population shifts that characterised the early gold rushes. (**Endnote 2**) The next group, the Mid-colonial Generation, would have seen expanded settlement of inland Australia and the spread of farming and pastoral activities to many parts of the country. (**Endnote 2**) The Late-colonial Generation would have grown up when the national debate about the federation of the Australasian British colonies was occurring.

As a result of the high fertility among these earlier generations of Australians, Australia had a very youthful population at the time of the 1911 Census. This can be seen in the relatively broad based population pyramid for 1911. Each generation had produced more children than the number of people in that generation. In 1911, 42% of the population were under 20 years of age; compared with 25% in an 'older' population in 2011.

That said, the 1911 population pyramid also shows the impact of a decline in fertility that occurred in the decade prior to Federation. This decline, from previously quite high fertility levels, was associated with a worldwide economic downturn that was brought about by the collapse of a speculative investment bubble (**Endnote 3**) and subsequent drought that affected Australia in 1902–03. In part, the effect of this fertility decline can be seen in the 10–14 years age group in 1911; those children who were born between 1896 and 1901. There were 20,400 fewer children in this

age cohort compared with the 15–19 year age cohort in the same year.

In the years prior to the 1911 Census the economy had recovered from the earlier downturn, and so between 1911 and 1929 Australia experienced relatively strong levels of population growth — the exception being the impact of the First World War (see the graph of Annual population growth above). The generally high levels of population growth were primarily the result of high levels of natural increase (i.e. a population increase when the number of babies born exceeds the number of people dying), and high natural increase was primarily the result of relatively high fertility levels. The death rate generally declined gradually over this period, continuing this decline up until today. The death rate has only had a noticeable impact on natural increase and the population profile at specific times.

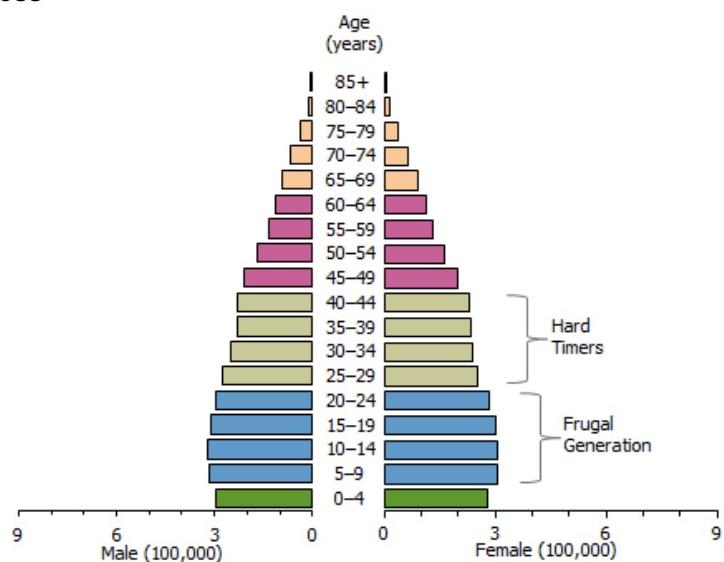
Between 1911 and 1929 the levels of migration were relatively high, apart from during the war years. The Commonwealth Government and the states sought to recruit migrants for the new nation at a time of increasing tensions in Europe in the years before the First World War and then continued recruitment of migrants in the years after the war. Between 1921 and 1928, when the migrants to Australia no longer included large numbers of returning war personnel, overall population growth averaged 121,000 people per year. In comparison, between 1901 and 1908, when migration was less prevalent due to the affects of the pre-Federation economic downturn, population growth averaged 57,500 people per year.

The First World War (1914–1918) disrupted the general pattern of population growth during the period leading up to the Great Depression in 1929. Australia's estimated population in 1914 was 4.95 million, of which 2.58 million were males. There was a total of 416,800 enlistments ([Endnote 4](#)), which resulted in the registered departure of 343,200 men and 2,700 women with the Australian Imperial Forces. ([Endnote 5](#)) These departures contributed to a decline in Australia's total population of 42,400 people in 1916 and 2,400 in 1917. The large outward troop movements were counter balanced to some extent by natural increase and a small in-flow of migrants. Just over 60,000 serving Australians died and 163,000 were wounded, gassed, injured or taken prisoner during the First World War. ([Endnote 4](#))

The 1933 population pyramid shows the mark left on the nation's population profile by those who did not return from the war, as well as the later disproportionate loss of men during the Spanish Influenza epidemic of 1919. One part of this loss can be seen in the surviving members of the 35–39 years age group: the people in this cohort were aged 16–20 years at the start of the war. In 1933 there were 21,500 fewer men aged 35–39 years compared with the number in the next younger 5 year age group, those aged 30–34. In 1911, prior to the war, the older age cohort had actually outnumbered those in the younger cohort by 11,000.

The traditional picture in the early days of Australia was for men to outnumber women. For example, in 1911 there were 109 men for every 100 women in the Hard Timers generation (those aged 25–44 in 1933). The loss of men from the 35–39 years age group in 1933 changed the ratio of the sexes within this cohort; there were 98 men for every 100 women.

Population structure(a) - 1933



(a) Population estimates based on Census counts and other information, see the box at end for more information.
Source: Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001).

The Great Depression (1930–1939)

Economic adjustment following the First World War and a market crash on Wall Street in 1929 lead to a severe and prolonged recession in developed economies world-wide, which lasted through to the start of the Second World War in 1939. Australia's strong dependence on exports at that stage of its economic development meant that it suffered badly during this time and the impact on Australia's population was substantial. As a result of the depression, the planned 1931 Census was cancelled. The Census was run in 1933 after it was recognised that the Census was an opportunity to understand the impact of the depression and could also provide some temporary employment.

During the depression population growth declined sharply (see the graph of Annual population growth above). The decline in the rate of growth was influenced by generally low levels of migration gains during the period, as well as some instances of net population loss through migration (i.e. more people departed Australia than arrived). The contribution to population growth from natural increase also declined, resulting from a sharp decline in fertility. Many families delayed having children in response to the uncertain economic situation. The population pyramid for 1954 shows the decline in fertility through the smaller sized cohorts for the age groups 15–19 years and 20–24 years; members of these age groups would have been born in the period 1930–39. Each of these 5 year age groups had approximately 100,000 fewer people in them compared with the next youngest cohort, those aged 10–14 in 1954. The 'bite' created in the population profile has carried through the population pyramids to 2011 where a legacy of a smaller cohort of people aged 65–84 years remains.

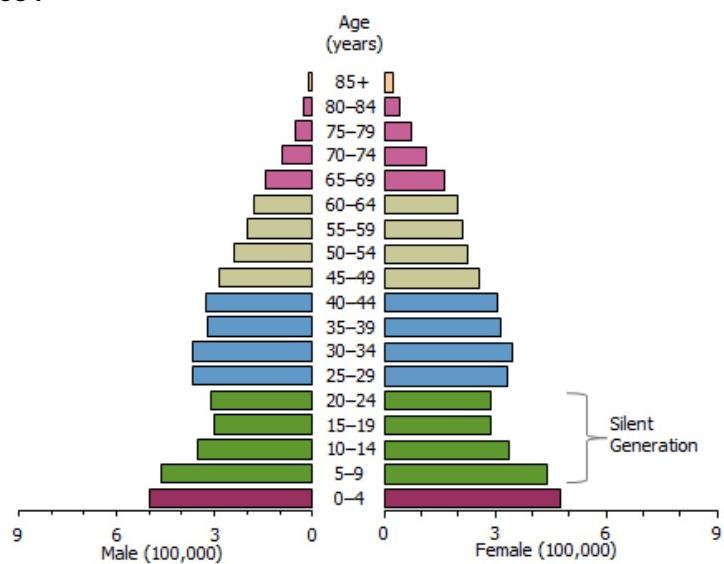
Second World War (1939–1945)

In 1939, Australia's population was estimated to be 6.97 million, with 3.52 million males. War records indicated that there were 726,500 enlistments, with 557,800 individuals departing for overseas service. Of those who departed, 30,300 died and there were 200,900 cases of wounding or injury, or individuals being taken prisoner. ([Endnote 4](#)) The direct impact of war personnel departing Australia in the Second World War cannot be seen in the population record over that period, as the 1952 Census Statistician's Report explained: 'For security reasons it was essential that particulars of embarkations of Australian troops for overseas, and of returning troops, should be excluded from current migration statistics during the war'. ([Endnote 6](#))

As with the First World War, at least part of the loss of men can be seen in the population pyramid from 1954, particularly for the cohort of men aged 35–39 years. These men were aged 20–24 years in 1939 at the start of the war. There were 1,200 less men aged 35–39 years in 1954 compared with the number in the next older 5 year age group, those aged 40–44. Prior to the war, in 1933, there were 12,500 more men in the younger age cohort than in the older cohort. While the ratio of the sexes for this age group also changed, it did not shift to favour women but became almost balanced at 102 men for every 100 women.

A Census would otherwise have been held in 1941 but was cancelled due to the war. The 1947 Census was planned and undertaken quickly after the end of the Second World War in 1945 and was seen as essential for Australia's post-war reconstruction.

Population structure(a) - 1954



(a) Population estimates based on Census counts and other information, see the box at end for more information.
Source: Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001).

Post-war immigration and the baby boom (1946–1971)

Following the Second World War Australia's population growth increased greatly, boosted by higher levels of both

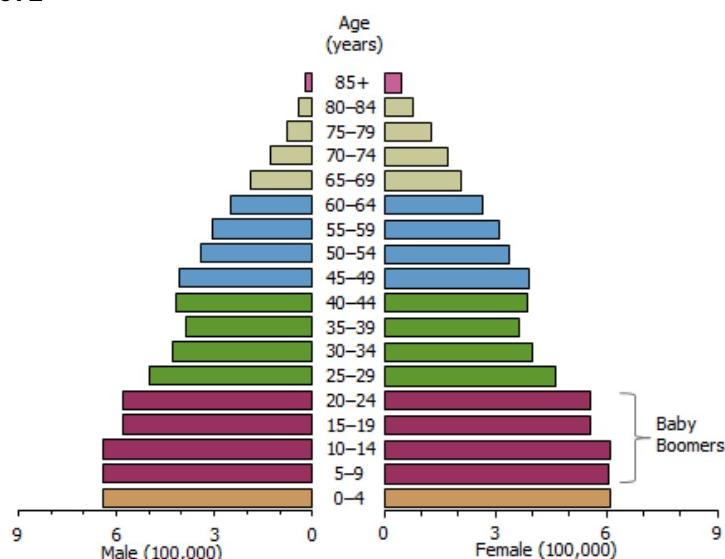
fertility and immigration. Between 1946 and 1971 annual population growth was, on average, 211,200 people (2.2% per year). In comparison, in the 17 years prior to 1946, a period starting with the Great Depression, population growth had averaged just under 62,700 people per year (or 0.9%).

Australia's immigration program increased substantially after the Second World War. This increase was based on the belief that Australia was too sparsely populated to ensure its security or to optimise its economic development. The displaced persons and the conditions in Europe following the war produced a strong flow of migrants to Australia. This post-war migration added to the number of Australians across almost all age groups, with the largest gains among younger adults. For example, the cohort of people aged 15–19 years in 1944 had increased by an extra 83,900 people by 1954, when the same group were aged 25–29 years. While the contribution that these migrants have made to the size of Australia's population has been substantial, perhaps of greater importance is the diversity of cultural backgrounds that these people came from and the affect this has had on Australia's cultural and social development — for more information see: **Cultural Diversity in Australia** in this publication.

The now famous Baby Boom began immediately after the end of the war, with a strong increase in fertility. This increase reflected the establishment or resumption of family life for many people following the impacts of the war and the Great Depression. The increase in fertility was subsequently sustained by generally positive economic conditions and gave rise to the Baby Boom Generation (shown in maroon on the population pyramids). The baby boom effect was so strong, with positive economic times continuing until the early 1970s, that the increase in the birth rate continued into the period when the Baby Boom Generation themselves began to have children. The relatively large numbers in this generation, combined with high fertility, lead to a peak in the number of births in 1971. This peak was not surpassed until 2007 when the overall population had grown considerably. (**Endnote 7**) For more information please see: **Echoes of the baby boom**, Australian Social Trends, 2004 (cat. no. 4102).

The increase in fertility during the post-war period, combined with immigration increasing the number of people of parenting age, altered the nation's population profile by filling out the base of the population pyramid. To some degree, this expansion compensated for the 'bite' in the profile left by the Great Depression. The baby boom can be seen in the 1971 population pyramid, where the three age groups between 0 and 14 years (born 1956–1971) each contained approximately 1.25 million people. In contrast, there were 755,000 people in the 35–39 years age group (born 1931–1936) in 1971. The bulge in the population profile for the three youngest age groups affects many aspects of Australian society today and will continue to do so into the future, both in terms of the effects associated with the ageing of the population and through the sheer number of people that this group comprises.

Population structure(a) - 1971



(a) Population estimates based on Census counts and other information, see the box at end for more information.

Source: Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001).

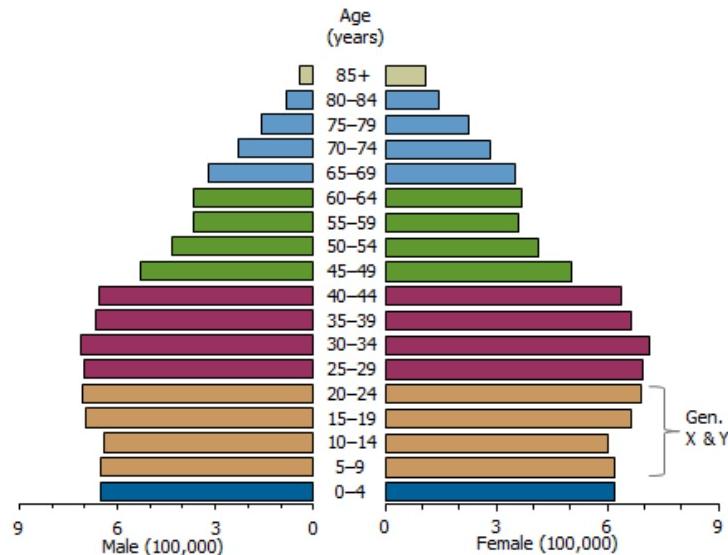
Baby bust and stalled migration (1972–1980)

During the 1970s the rate of population growth slowed markedly. In 1970, annual population growth was 244,000 people. By 1975 this level of growth had dropped to 170,000 people, and stayed between 140,000 and 180,000 in each year up to 1980. Over this period economic growth slowed, and levels of fertility and migration both dropped. Fertility dropped to levels below those experienced during the depression and below replacement level (the Total Fertility Rate required for a population to replace deaths in the long-term without immigration — 2.1 babies per woman). In addition to economic factors, declining fertility was associated with changes in attitudes to the roles of women in society. These factors, combined with the increased availability of oral contraceptives that allowed women

to control their fertility more effectively, resulted in some women delaying childbearing or remaining childless.

The results of these changes in fertility can be seen in the population pyramid from 1991 where there are relatively smaller age cohorts between ages 0–14 years (born 1976–1991), compared with those aged 15–34 (born 1956–1976). The three age groups between 0 and 14 years each contained approximately 1.27 million people in 1991. These levels were largely unchanged from the number of people in these same age groups in the 1971 population pyramid, despite Australia's overall population increasing substantially over this period.

Population structure(a) - 1991



(a) Population estimates based on Census counts and other information, see the box at end for more information.

Source: Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001).

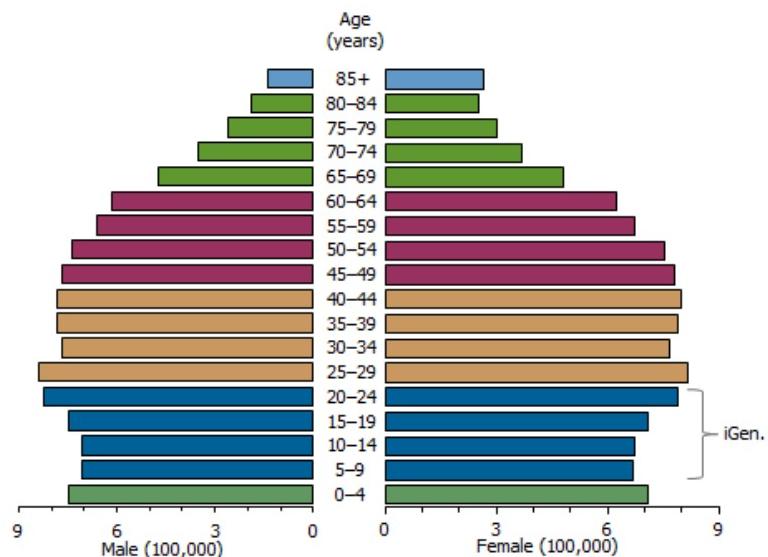
Low fertility and variable migration (1981–2006)

Over the 25 years to 2006, Australia's economy underwent significant deregulation and restructuring, and opened up to international markets. While economic growth was generally sustained over this 25 year period, two significant downturns in the economy occurred in the early years of the 1980s and 1990s, and the unemployment rate was 6% or more during most of this period. During this period, population growth increased to levels experienced before the 1970s — averaging 231,000 persons per year. The main driver behind these higher levels of population growth was migration, the level of which varied somewhat through this time.

Increased migration compensated for declining fertility over this period, where fertility reached an all time low in 2001 of 1.73 babies per woman (Total Fertility Rate). Smaller sized cohorts of younger people in the 2011 population pyramid compared with older age groups directly reflect this lower fertility. In 2011, the 5–9 years age group (born 2001–2006) contained 1.37 million people, compared with 1.54–1.66 million people in each of the age groups between 25 and 49 years.

Despite lower fertility over this period, there is a greater number of children in the age groups under 15 in 2011, compared with the same age groups in population pyramids from previous census years. For example, in 2011 there were 100,000 more children aged 5–9 years than in 1991. This is due to migration adding to the number of young adults in Australia. Many of these young migrants had children after arriving, and in some cases had brought children with them. The children of these migrants increased the total number of children in Australia compared with the level that would have been born in Australia had migration not occurred.

Population structure(a) - 2011



(a) Population estimates based on Census counts and other information, see the box at end for more information.
Source: Australian Demographic Statistics, December 2011 (cat. no. 3101.0).

Increased migration and fertility (2007–2011)

Despite the economic impacts of the global financial crisis which started in 2007 and the ongoing repercussions within global financial markets, Australia experienced strong and sustained population growth throughout the period 2007–2011 (see the graph of Annual population growth above). In 2009, the addition of 394,000 people was the highest single annual increase to Australia's population, and the annual growth rate of 1.8% was unmatched since 1972. Migration was a significant factor in the population growth during this period. For the first time since federation, migration consistently contributed more to population growth than the contribution from natural increase. However, much of this recent increase has come from increased numbers of long-term temporary migrants; those with student, holiday and business visas (for more information see **Migration, Australia** (cat. no. 3412.0)). The effect of this high level of migration can be seen in the 25–29 years age group in 2011, where there were an additional 385,000 people compared with the numbers in this cohort when they were aged 5–9 years in 1991.

Over this same period fertility in Australia also increased, peaking in 2008 at 1.96 babies per woman (Total Fertility Rate). This increase is linked to a catch-up in fertility following the delayed fertility that had been observed over previous decades. (**Endnote 8**) The effect of this increase in fertility can be seen in the greater size of the 0–5 years age group compared with the next older age group in 2011. There were 85,200 more children in the younger age group in 2011.

The future — an ageing population

In the population pyramids from the last 100 years, the beginnings of the process of population ageing can be seen. The youthful, broad-based population pyramid from 1911 has been replaced by one in 2011 that has filled out at the top and through the middle of the pyramid. This has largely occurred because a greater proportion of the population are now able to survive into older ages through improvements in sanitation, diet, public health and medical technology. Furthermore, the lower fertility that has prevailed over the last 30 years has also undercut the base of the pyramid, with relatively smaller numbers of children in the younger age cohorts. This has resulted in relatively fewer younger people to counterbalance those in older age groups. In 2011, 14% of the population was aged 65 or over compared with 4% back in 1911. In future years population ageing will increase as the first major bulge in the population pyramid, comprising the Baby Boom Generation, enters older age. For further information see: **Future population growth and ageing**, Australian Social Trends, 2009 (cat. no. 4102.0).

Population estimates based on Census results

Population estimates used in this article from 1911 to 1970 are derived from Census counts that are unadjusted for underenumeration and are based on individuals' actual location, including overseas visitors. These counts were updated to June 30 of each year (where applicable) by adjusting them according to registered births and deaths by state/territory of registration, and interstate and overseas migration. From 1971 onwards, the Estimated Resident Population (ERP) measure is used. ERP was introduced following the 1981 Census and backdated to 1971.

ERP is an estimate of the Australian population derived from Census counts of usual residents, excluding overseas visitors. An estimated net Census undercount and Australian residents estimated to have been temporarily overseas at the time of the Census are added. ERP counts for 30 June of each year are obtained by adding to the population the applicable component of natural increase and net overseas migration. For the states and territories, account is

also taken of estimated interstate movements involving a change of usual residence.

Under the constitution at Federation, 'Aboriginal natives' were not to be counted in the Census and so were excluded from the final results. This restriction was removed following a referendum in 1967. The ABS has endeavoured to conduct as full a count of Aboriginal and Torres Strait Islander peoples as possible from the 1971 Census onwards. Population estimates were backdated to 1961 to include Aboriginal and Torres Strait Islander peoples.

Demographic terms

Natural Increase - A population increase when the number of babies born exceeds the number of people dying in any given year.

Fertility - The general discussions of fertility in this article are primary based on the level of the crude birth rate, which is the total number of births expressed as a ratio of the total number of people in the population in any given year. The Total Fertility Rate (TFR) is also used in specific instances, this is an estimate of overall fertility; it is an estimate of the total number of babies each woman would have on average, if the age-specific fertility rates of the given year prevailed throughout her reproductive life.

Death rate - In this article the crude death rate is used as an indicator of mortality; it is the total number of deaths expressed as a ratio of the total number of people in the population in any given year.

Migration - In this article migration is used to refer to net overseas migration, this is the difference between the number of incoming travellers who stay in Australia for 12 months or more and the number of outgoing travellers who leave Australia for 12 months or more. In Australia this usually results in a net gain of people.

For more information see: **Australian Historical Population Statistics** (cat. no. 3105.0.65.001).

ENDNOTES

1. The 2010 population data for Sydney is based on the most current data available at the time of publishing, this is preliminary ERP data (Source: Australian Demographic Statistics, Sep 2011, cat. no. 3101.0) and not the rebased ERP data, which uses the 2011 Census results, that is used elsewhere in this report.

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